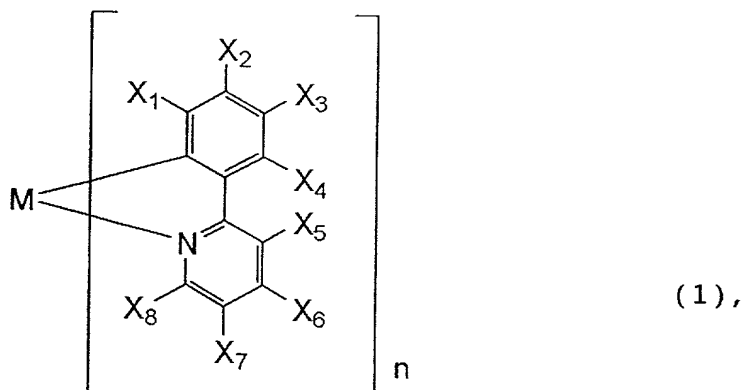


WHAT IS CLAIMED IS:

1. A luminescence device, comprising: an organic compound layer comprising a metal coordination compound represented by the following formula (1):



wherein M denotes Ir, Rh or Pd; n is 2 or 3; and X1 to X8 independently denote hydrogen atom or a substituent selected from the group consisting of halogen atom; nitro group; trifluoromethyl group trialkylsilyl group having three linear or branched alkyl groups each independently having 1 - 8 carbon atoms; and a linear or branched alkyl group having 2 - 20 carbon atoms capable of including one or at least two non-neighboring methylene groups which can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C≡C- and capable of including hydrogen atom which can be replaced with fluorine atom; with the proviso that at least one of X1 to X8 is a substituent other than hydrogen atom, and X2 and X3 cannot be fluorine atom at the same time.

15

20

25

2. A device according to Claim 1, wherein at least two of X1 to X8 are substituents other than hydrogen atom.

5 3. A device according to Claim 1, wherein at least one of X5 to X8 is a substituent other than hydrogen atom.

10 4. A device according to Claim 1, wherein at least two of X1 to X4 are substituents other than hydrogen atom.

15 5. A device according to Claim 1, wherein at least one of X2, X3 and X4 has a Hammett's substituent constant of at least 0.2 with respect to the carbon atom connected to M, and the metal coordination compound exhibits a peak emission wavelength in toluene at 25 °C of at most 490 nm.

20 6. A device according to Claim 1, wherein X2, X3 and X4 provides a sum of Hammett's substituent constant of at least 0.41 with respect to the carbon atom connected to M, and the metal coordination compound exhibits a peak emission wavelength in toluene at 25 °C of at most 490 nm.

7. A device according to Claim 6, wherein the

sum of Hammett's substituent constant is at least 0.50.

8. A luminescence device, comprising: an organic
5 compound layer comprising a metal coordination
compound having at least one substituent, wherein
said at least one substituent includes a
substituent having a Hammett's substituent constant of
at least 0.2, and the metal coordination compound
10 exhibits a peak emission wavelength in toluene at 25
°C of at most 490 nm.

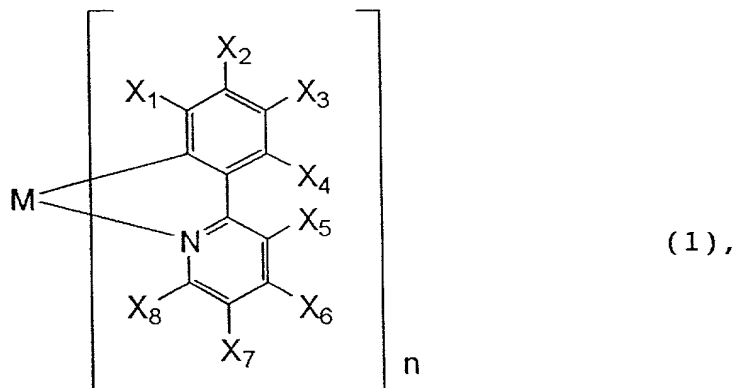
9. A device according to Claim 8, wherein said
at least one substituent includes two or more
15 substituents each having a Hammett's substituent
constant of at least 0.2.

10. A device according to Claim 1, further
comprising a pair of electrodes oppositely disposed to
20 sandwich the organic compound layer, wherein a voltage
is applied between the pair of electrodes to cause
luminescence.

11. A display apparatus, comprising: a
25 luminescence device according to Claim 1 and drive
means for driving the luminescence device.

09564035.00404

12. A metal coordination compound, adapted for use in a luminescence device, represented by the following formula (1):



wherein M denotes Ir, Rh or Pd; n is 2 or 3; and X1 to X8 independently denote hydrogen atom or a substituent selected from the group consisting of halogen atom; nitro group; trifluoromethyl group trialkylsilyl group having three linear or branched alkyl groups each independently having 1 - 8 carbon atoms; and a linear or branched alkyl group having 2 - 20 carbon atoms capable of including one or at least two non-neighboring methylene groups which can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C≡C- and capable of including hydrogen atom which can be replaced with fluorine atom; with the proviso that at least one of X1 to X8 is a substituent other than hydrogen atom, and X2 and X3 cannot be fluorine atom at the same time.

15

20

25

13. A compound according to Claim 12, wherein at least two of X1 to X8 are substituents other than hydrogen atom.

5 14. A compound according to Claim 12, wherein at least one of X5 to X8 is a substituent other than hydrogen atom.

10 15. A compound according to Claim 12, wherein at least two of X1 to X4 are substituents other than hydrogen atom.

15 16. A compound according to Claim 12, wherein at least one of X2, X3 and X4 has a Hammett's substituent constant of at least 0.2 with respect to the carbon atom connected to M, and the metal coordination compound exhibits a peak emission wavelength in toluene at 25 °C of at most 490 nm.

20 17. A compound according to Claim 12, wherein X2, X3 and X4 provides a sum of Hammett's substituent constant of at least 0.41 with respect to the carbon atom connected to M, and the metal coordination compound exhibits a peak emission wavelength in
25 toluene at 25 °C of at most 490 nm.

18. A compound according to Claim 17, wherein the

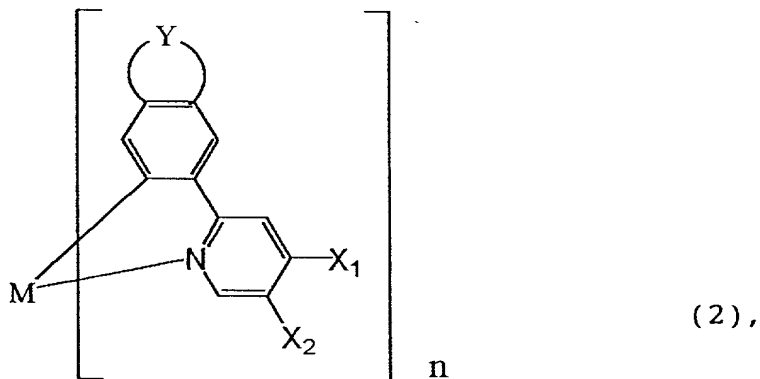
sum of Hammett's substituent constant is at least 0.50.

19. A metal coordination compound having at least one substituent adapted for use in a luminescence device, wherein

said at least one substituent includes a substituent having a Hammett's substituent constant of at least 0.2, and the metal coordination compound exhibits a peak emission wavelength in toluene at 25 °C of at most 490 nm.

20. A compound according to Claim 19, wherein said at least one substituent includes two or more substituents each having a Hammett's substituent constant of at least 0.2.

21. A luminescence device, comprising: an organic compound layer comprising a metal coordination compound represented by the following formula (2):



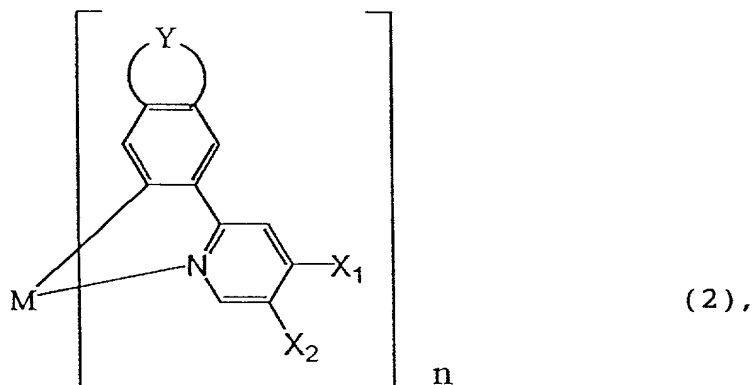
wherein M denotes Ir, Rh or Pd; n is 2 or 3; Y denotes an alkylene group having 2 - 4 carbon atoms capable of including one or at least two non-neighboring methylene groups which can be replaced with -O-, -S- or -CO- and capable of including hydrogen atom which can be replaced with a linear or branched alkyl group having 1 - 10 carbon atoms; and X1 and X2 independently denote hydrogen atom; halogen atom; nitro group; trialkylsilyl group having 1 - 8 carbon atoms; or a linear or branched alkyl group having 1 - 20 carbon atoms capable of including one or at least two non-neighboring methylene groups which can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C≡C- and capable of including hydrogen atom which can be replaced with fluorine atom.

22. A device according to Claim 21, wherein at least one of X1 to X2 is hydrogen atom.

23. A device according to Claim 21, further comprising a pair of electrodes oppositely disposed to sandwich the organic compound layer, wherein a voltage is applied between the pair of electrodes to cause luminescence.

24. A metal coordination compound, adapted for use in a luminescence device, represented by the

following formula (2):



10 wherein M denotes Ir, Rh or Pd; n is 2 or 3; Y denotes an alkylene group having 2 - 4 carbon atoms capable of including one or at least two non-neighboring methylene groups which can be replaced with -O-, -S- or -CO- and capable of including hydrogen atom which

15 can be replaced with a linear or branched alkyl group having 1 - 10 carbon atoms; and X1 and X2 independently denote hydrogen atom; halogen atom; nitro group; trialkylsilyl group having 1 - 8 carbon atoms; or a linear or branched alkyl group having 1 -

20 20 carbon atoms capable of including one or at least two non-neighboring methylene groups which can be replaced with -O-, -S-, -CO-, -CO-O-, -O-CO-, -CH=CH- or -C≡C- and capable of including hydrogen atom which can be replaced with fluorine atom.

25 25. A compound according to Claim 24, wherein at least one of X1 to X2 is hydrogen atom.